

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Previously Presented) A system comprising:
an optical element;
at least one structure at least partially in a non-opaque portion of the optical element and at least adjacent a surface of the optical element, wherein the structure is elongated with opposing narrow ends, one of the opposing narrow ends is adjacent the surface of the optical element and the other opposing narrow end is further from the surface than the one of the opposing narrow ends and is spaced in from other surfaces of the optical element; and
a source of light with a mode profile that provides an electric field which has a vector component substantially perpendicular to the surface of the optical element, the source positioned to propagate at least a portion of the light through the optical element on to an object, the structure enhancing the electric field of the light which optically interacts with the object.
2. (Original) The system as set forth in claim 1 further comprising a guiding system that moves at least one of the optical element with the structure or the object.
3. (Original) The system as set forth in claim 1 further comprising a focusing lens positioned to focus the light from the source on to the optical element.
4. (Original) The system as set forth in claim 1 wherein the optical element is a solid immersion lens.
5. (Original) The system as set forth in claim 1 wherein the optical element is an optical waveguide.
6. (Previously Presented) The system as set forth in claim 1 wherein the structure extends in a direction which is substantially perpendicular to the surface of the optical element.

7. (Original) The system as set forth in claim 1 wherein the structure protrudes out past the surface of the optical element.

8. (Previously Presented) The system as set forth in claim 7 further comprising a coating over at least a portion of the structure that protrudes out past the surface of the optical element.

9. (Currently Amended) A system comprising:
an optical element;
at least one structure at least partially in a non-opaque portion of the optical element and at least adjacent a surface of the optical element; and
a source of light with a mode profile that provides an electric field which has a vector component substantially perpendicular to the surface of the optical element, the source positioned to propagate at least a portion of the light through the optical element on to an object, the structure enhancing the electric field of the light which optically interacts with the object;
wherein the optical element comprises an optical base and an optical layer connected to the optical base, the structure is at least partially in and at least adjacent to a surface of the optical layer which is adjacent to a vicinity where the enhanced electric field protrudes from the optical element.

10. (Previously Presented) The system as set forth in claim 9 wherein the structure is elongated and protrudes out past the surface of the optical layer.

11. (Previously Presented) The system as set forth in claim 10 further comprising a coating over at least a portion of the structure that protrudes out past the surface of the optical layer.

12. (Previously Presented) The system as set forth in claim 9 further comprising an opening extending through the optical layer, wherein the structure is located in at least a portion of the opening.

13. (Previously Presented) The system as set forth in claim 12 wherein at least a portion of the opening has a conical shape and wherein the sides of the conical portion are substantially straight.

14. (Previously Presented) A method comprising:
providing an optical element with at least one structure at least partially in a non-opaque portion of the optical element and at least adjacent to a surface of the optical element, wherein the structure is elongated with opposing narrow ends, one of the opposing narrow ends is adjacent the surface of the optical element and the other opposing narrow end is further from the surface than the one of the opposing narrow ends and is spaced in from other surfaces of the optical element; and
directing light with a mode profile that provides an electric field which has a vector component substantially perpendicular to the surface of the optical element through at least a portion of the optical element on to an object, the structure enhancing the electric field of the light which optically interacts with the object.

15. (Original) The method as set forth in claim 14 further comprising guiding at least one of the directed light or the object.

16. (Original) The method as set forth in claim 14 further comprising focusing the light on to the optical element.

17. (Original) The method as set forth in claim 14 wherein the optical element is a solid immersion lens.

18. (Original) The method as set forth in claim 14 wherein the optical element is an optical waveguide.

19. (Previously Presented) The method as set forth in claim 14 wherein the structure extends in a direction which is substantially perpendicular to the surface of the optical element.

20. (Original) The method as set forth in claim 14 wherein the structure protrudes out past the surface of the optical element.

21. (Original) The method as set forth in claim 20 further comprising a coating over at least a portion of the structure that protrudes out past the surface of the optical layer.

22. (Currently Amended) A method comprising:
providing an optical element with at least one structure at least partially in a non-opaque portion of the optical element and at least adjacent to a surface of the optical element; and
directing light with a mode profile through at least a portion of the optical element on to an object, the structure enhancing the electric field of the light which optically interacts with the object;
wherein the provided optical element comprises an optical base and an optical layer connected to the optical base, the structure is at least partially in and at least adjacent to a surface of the optical layer which is adjacent to a vicinity where the enhanced electric field protrudes from the optical element.

23. (Original) The method as set forth in claim 22 wherein the structure is elongated and protrudes out past the surface of the optical layer.

24. (Original) The method as set forth in claim 23 further comprising a coating over at least a portion of the structure that protrudes out past the surface of the optical layer.

25. (Original) The method as set forth in claim 22 further comprising an opening extending through the optical layer, wherein the structure is located in at least a portion of the opening.

26. (Previously Presented) The method as set forth in claim 25 wherein at least a portion of the opening has a conical shape and wherein the sides of the conical portion are substantially straight.

27. (Previously Presented) A lens comprising:
an optical element; and
a structure at least partially in a non-opaque portion of the optical element and at least adjacent a surface the optical element, wherein the structure is elongated and wherein one end of the elongated structure has a tapered section that begins to taper at location spaced in from the surface of the optical element and converges to one tapered end tip adjacent the surface of the optical element, wherein the structure protrudes out past the surface of the optical element and a coating over at least a portion of the structure that protrudes out past the surface of the optical element.

28. (Previously Presented) The lens as set forth in claim 27 wherein the structure is elongated and extends in a direction which is substantially perpendicular to the surface of the optical element.

29. (Cancelled).

30. (Cancelled).

31. (Currently Amended) A lens comprising:
an optical element; and
a structure at least partially in a non-opaque portion of the optical element and at least adjacent a surface the optical element;
wherein the optical element comprises an optical base and at least one optical layer connected to the optical base, the structure is at least partially in and at least adjacent to a surface of the optical layer from which an enhanced electric field that interacts with an object protrudes from the optical element.

32. (Original) The lens as set forth in claim 31 wherein the structure is elongated and protrudes out past the surface of the optical layer.

33. (Original) The lens as set forth in claim 32 further comprising a coating over at least a portion of the structure that protrudes out past the surface of the optical layer.

34. (Original) The lens as set forth in claim 31 further comprising an opening extending through the optical layer, wherein the structure is located in at least a portion of the opening.

35. (Previously Presented) The lens as set forth in claim 34 wherein at least a portion of the opening has a conical shape and wherein the sides of the conical portion are substantially straight.

36. (Previously Presented) A method for making a lens, the method comprising:

providing an optical element;

forming at least one opening in a non-opaque portion of the optical element and adjacent a surface of the optical element; and

depositing a material in the at least one opening to form a structure, wherein the structure is formed to be elongated and wherein one end of the elongated structure has a tapered section that begins to taper at location spaced in from the surface of the optical element and converges to one tapered end tip adjacent the surface of the optical element; and

coating over at least a portion of the structure in the at least one opening.

37. (Previously Presented) The method as set forth in claim 36 wherein the structure is elongated and extends in a direction which is substantially perpendicular to the surface of the optical element.

38. (Original) The method as set forth in claim 36 wherein the structure protrudes out past the surface of the optical element.

39. (Cancelled).

40. (Currently Amended) A method for making a lens, the method comprising:

providing an optical element;
forming at least one opening in a non-opaque portion of the optical element and adjacent a surface of the optical element; and
depositing a material in the at least one opening to form a structure;
wherein the providing the optical element further comprises connecting an optical layer to an optical base, wherein the forming the at least one opening is at least partially in and at least adjacent to a surface of the optical layer from which an enhanced electric field that interacts with an object protrudes from the optical element and the depositing the material is in the at least one opening.

41. (Original) The method as set forth in claim 40 wherein the structure is elongated and protrudes out past the surface of the optical layer.

42. (Previously Presented) The method as set forth in claim 41 further comprising a coating over at least a portion of the structure that protrudes out past the surface of the optical layer.

43. (Original) The method as set forth in claim 40 wherein the forming the opening further comprises forming the opening to extend through the optical layer.

44. (Previously Presented) The method as set forth in claim 43 wherein the forming the opening further comprises forming at least a portion of the opening to have a conical shape and wherein the sides of the conical portion are substantially straight.

45. (Previously Presented) A system comprising:

at least one elliptical shaped mirror;
at least one structure positioned to optically interact with the elliptical shaped mirror; and
a source of light, the structure reflecting at least a portion of the light on to at least a portion of the elliptical shaped mirror, the elliptical shaped mirror focusing the at least a portion of the light on to at least another substantially opaque portion of the structure enhancing the electric field of the light which optically interacts with an adjacent object.

46. (Previously Presented) The system as set forth in claim 45 further comprising a guiding system that moves at least one of the elliptical shaped mirror or the object.

47. (Previously Presented) A system comprising:
at least two elliptical shaped mirrors;
at least one structure positioned to optically interact with the elliptical shaped mirrors; and
a source of light with a mode profile that provides an electric field which has a vector component substantially perpendicular to a surface of the elliptical shaped mirrors, the structure directing at least a portion of the light on to at least a portion of the elliptical shaped mirrors, the elliptical shaped mirrors focusing the at least a portion of the light on to at least another portion of the structure enhancing the electric field of the light which optically interacts with an adjacent object.

48. (Previously Presented) The system as set forth in claim 45 wherein the structure is elongated and has at least one tip and the elliptical shaped mirror focuses the at least a portion of the light on to the at least one tip.

49. (Previously Presented) A method comprising:
providing at least one elliptical shaped mirror and at least one structure positioned to optically interact with the elliptical shaped mirror; and
reflecting light with at least a portion of the structure on to at least a portion of the elliptical shaped mirror, the elliptical shaped mirror focusing the light on to at least another substantially opaque portion of the structure enhancing the electric field of the light which optically interacts with an adjacent object.

50. (Original) The method as set forth in claim 49 further comprising guiding at least one of the directed light or the object.

51. (Previously Presented) A method comprising:
providing at least two elliptical shaped mirrors and at least one structure positioned to optically interact with the elliptical shaped mirrors; and
directing light with at least a portion of the structure on to at least a portion of the elliptical shaped mirrors, the elliptical shaped mirrors focusing the light on to at least another portion of the structure enhancing the electric field of the light which optically interacts with an adjacent object.

52. (Original) The method as set forth in claim 49 wherein the structure is elongated and has at least one tip.

53. (Previously Presented) The system as set forth in claim 45 further comprising at least one reflective surface on the structure that reflects at least a portion of the light on to at least a portion of the elliptical shaped mirror.

54. (Previously Presented) The system as set forth in claim 1 wherein one end of the elongated structure has a tapered section that begins to taper at location spaced in from the surface of the optical element and converges to one pointed tip at one of the narrow ends adjacent the surface of the optical element.

55. (Previously Presented) The system as set forth in claim 54 wherein the elongated structure extends in a direction which is substantially perpendicular to the surface of the optical element and wherein the optical element is a solid immersion lens.

56. (Previously Presented) The method as set forth in claim 14 wherein one end of the elongated structure has a tapered section that begins to taper at location spaced in from the surface of the optical element and converges to one pointed tip at one of the narrow ends adjacent the surface of the optical element.

57. (Previously Presented) The method as set forth in claim 56 wherein the elongated structure extends in a direction which is substantially perpendicular to the surface of the optical element and wherein the optical element is a solid immersion lens.

58. (Previously Presented) A lens comprising:
an optical element; and
a structure at least partially in a non-opaque portion of the optical element and at least adjacent a surface the optical element, wherein the structure is elongated and wherein one end of the elongated structure has a tapered section that begins to taper at location spaced in from the surface of the optical element and converges to one tapered end tip adjacent the surface of the optical element and wherein the elongated structure extends in a direction which is substantially perpendicular to the surface of the optical element and wherein the optical element is a solid immersion lens.

59. (Previously Presented) A method for making a lens, the method comprising:
providing an optical element;
forming at least one opening in a non-opaque portion of the optical element and adjacent a surface of the optical element; and
depositing a material in the at least one opening to form a structure, wherein the structure is formed to be elongated and wherein one end of the elongated structure has a tapered section that begins to taper at location spaced in from the surface of the optical element and converges to one tapered end tip adjacent the surface of the optical

element and wherein the elongated structure extends in a direction which is substantially perpendicular to the surface of the optical element and wherein the optical element is a solid immersion lens.

60. (Currently Amended) A system comprising:

an elongated optical element;

at least one structure at least partially in a non-opaque portion of the optical element; and

a source of light positioned to propagate at least a portion of the light through the optical element in a direction generally parallel to a surface of ~~an object~~ the elongated optical element which faces an object, the structure enhancing the electric field of the light propagating through the optical element which interacts with the object.

61. (Currently Amended) A method comprising:

providing an elongated optical element with at least one structure at least partially in a non-opaque portion of the optical element and at least adjacent to a surface of the optical element; and

directing light through the elongated optical element in a direction generally parallel to a surface of ~~an object~~ the elongated optical element which faces an object, the structure enhancing the electric field of the light which interacts with the object.